

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims:

1-19 (Canceled)

20. (Previously Presented) A method for creating a series of unique identifiers using a processor coupled to first memory and to at least one block of second memory slower than the first memory, the method comprising the steps of:

storing a predetermined identifier in said second memory and in said first memory;

setting a bit string in said second memory to a first logical value;

setting a number subfield and a range subfield, together comprising an extension field in said first memory, to a second logical value; and

generating a monotonic sequence of said unique identifiers by repetitively performing the steps of:

incrementing said number subfield;

creating said unique identifier by concatenating said predetermined identifier and said extension field; and

when said number subfield contains all of the first logical value, performing the steps of:

setting to the second logical value, a next sequential bit in the bit string in said second memory;

incrementing said range subfield in said first memory; and

resetting said number subfield to the second logical value.

21. (Previously Presented) The method of claim 20, wherein, in the event that the contents of said first memory are lost, establishing a new value for said unique identifier by performing the steps of:

storing, in said range subfield in said extension field, the binary equivalent of the number of sequential bits of the second logical value in the bit string in said second memory; and

setting said number subfield to all of the first logical value.

22. (Original) The method of claim 20, wherein said predetermined identifier is derived from a World Wide Name.

23. (Previously Presented) A method for creating a series of unique identifiers using a processor coupled to first memory and to at least one block of second memory slower than the first memory, the method comprising the steps of:

- storing a predetermined identifier in said second memory and in said first memory;
- setting a bit string in said second memory to a value of all of a first logical value;
- setting a counter in said second memory to a value of a second logical value;
- setting a number subfield and a range subfield, together comprising an extension field in said first memory, to the second logical value; and
- generating a monotonic sequence of said unique identifiers by repetitively performing the steps of:

- incrementing said number subfield;
 - creating said unique identifier by concatenating said predetermined identifier and said extension field; and
 - when said number subfield contains all of the first logical value, performing the steps of:

- incrementing said range subfield in said first memory; and
 - resetting said number subfield to the second logical value;
 - setting to second logical value, a next sequential bit in the bit string in said second memory; and

- when said bit string in said second memory contains all of the second logical value, performing the steps of:

- incrementing counter in said second memory; and
 - resetting said bit string to all of the first logical value.

24. (Previously Presented) The method of claim 23, wherein, in the event that the contents of said first memory are lost, establishing a value for said unique identifier by performing the steps of:

storing, in said range subfield in said extension field, a value equal to the binary value of the counter times one plus the total number of bits in the bit string in said second memory, plus the binary equivalent of the number of the second logical value bits in the bit string in said second memory; and

setting said number subfield to all of the first logical value.

25. (Original) The method of claim 23, wherein said predetermined identifier is derived from a World Wide Name.

26-29. (Canceled)

30. (Previously Presented) A system for generating a series of unique identifiers for use in a computer network, the system comprising:

first memory containing one of the unique identifiers comprising a predetermined identifier and a field including a number subfield and a range subfield;

second memory slower than the first memory containing a copy of said predetermined identifier and bit string representing a value of said range subfield; and

a processor coupled to said first memory and said second memory;

wherein said system generates a monotonic sequence of said unique identifiers by incrementing said number subfield;

wherein, when said number subfield contains all of a first logical value, a bit in the bit string in said second memory is set to a second logical value; said range subfield is incremented; and said number subfield is reset to the second logical value; and

wherein, a value for said one of the unique identifiers is determined by storing, in said range subfield, the binary equivalent of the number of the second logical value bits in the bit string in said second memory.

31. (Original) The system of claim 30, wherein said predetermined identifier is derived from a World Wide Name.

32. (Previously Presented) A system for generating a series of unique identifiers for use in a computer network, the system comprising:

first memory containing one of the unique identifiers comprising a predetermined identifier and a field including a number subfield and a range subfield;

second memory slower than the first memory containing a counter, a copy of said predetermined identifier and bit string representing a value of said range subfield; and

a processor coupled to said first memory and said second memory;

wherein said system generates a monotonic sequence of said unique identifiers by incrementing said number subfield;

wherein, when said number subfield contains all of a first logical value, a bit in the bit string in said second memory is set to a second logical value; said range subfield is incremented; and said number subfield is reset to the second logical value; and

wherein, when said bit string in said second memory contains all of the second logical value, the counter in said second memory is incremented and the bit string in said second memory is set to all of the first logical value.

33. (Previously Presented) The system of claim 32, wherein a value for said one of the unique identifiers is determined by storing, in said range subfield, a value equal to the binary value of the counter times one plus the total number of bits in the bit string in said second memory, plus the binary equivalent of the number of the second logical value bits in the bit string in said second memory.

34. (Original) The system of claim 32, wherein said predetermined identifier is derived from a World Wide Name.

35-38. (Canceled)

39. (New) A method for creating a series of unique identifiers comprising:
setting a bit string in a non-volatile memory (NVM) to a first bit string logical value;
setting a number field and a range field in a volatile memory (VM) to a first VM logical value; and

generating a sequence of unique identifiers by repetitively:
 incrementing the number field; and
 when the number field contains all of a second VM logical value, then:
 (1) incrementing the range field,
 (2) resetting the number field to the first VM logical value, and
 (3) stepping the bit string by setting to a second NVM logical value a next sequential bit in the bit string,
 wherein each time the number field is incremented or reset a new unique identifier comprising the number field and the range field is created.

40. (New) The method of claim 39, wherein when contents of the VM are lost, generating a next unique identifier in the sequence by performing:
 determining a number of bits of the bit string having the second NVM logical value;
 storing in the range field a value based on the determined number of bits; and
 setting the number field to all of the first VM logical value;
 wherein the next unique identifier comprises the number field and the range field.

41. (New) The method of claim 39, further comprising:
 setting a counter in a NVM to a first counter logical value;
 setting a counter field in the VM to the first VM logical value; and
 when the bit string contains all of the second NVM logical value, performing the steps of:
 incrementing the counter in the NVM and the counter field in the VM; and
 resetting the bit string to all of the first NVM logical value;
 wherein each time the number field is incremented or reset the new unique identifier created further comprises the counter field.

42. (New) The method of claim 41, wherein when contents of the VM are lost, generating a next unique identifier in the sequence by performing the steps of:
 storing in the counter field the value of the counter;
 determining a number of bits of the bit string having the second NVM logical value;
 storing in the range field a binary equivalent of the determined number of bits; and

setting the number field to all of the first VM logical value;
wherein the next unique identifier comprises the number field, the range field and the counter field.

43. (New) The method of claim 39, further comprising:
storing a predetermined identifier in a NVM; and
setting a predetermined identifier field in the VM to the predetermined identifier;
wherein each time the number field is incremented or reset the new unique identifier created further comprises the predetermined identifier field.

44. (New) The method of claim 43, wherein the predetermined identifier is derived from a World Wide Name.

45. (New) The method of claim 43, wherein when contents of the VM are lost, generating a next unique identifier in the sequence by performing the steps of:
storing in the predetermined identifier field the predetermined identifier;
determining the number of bits of the bit string having the second NVM logical value;
storing in the range field the binary equivalent of the determined number of bits; and
setting the number field to all of the first VM logical value.
wherein the next unique identifier comprises the number field, the range field, and the predetermined identifier field.

46. (New) A system for creating a series of unique identifiers comprising:
a first non-volatile memory (NVM) for storing and stepping a bit string, each bit in the bit string having one of a first bit string logical value and a second bit string logical value; and
a volatile memory (VM) coupled to the first NVM for storing, incrementing, and resetting a number field and for storing and incrementing a range field, the VM comprising bits having one of a first VM logical value and a second VM logical value;
wherein each time the number field is incremented or reset a unique identifier is created comprising the number field and the range field.

47. (New) The system of claim 46, wherein when the number field contains all of the second VM logical value, the range field is incremented, the number field is reset to all of the first VM logical value, and the bit string in the first NVM is stepped.

48. (New) The system of claim 46, further comprising a processor coupled to the VM and the NVM for determining the number of bits of the bit string having the second NVM logical value and setting the value of the range field based on the determined number of bits.

49. (New) The system of claim 46, further comprising:
a counter in a second NVM coupled to the NVM and to the first NVM, for storing the number of times the bit string in the first NVM is reset to all of the first NVM logical value; and
a counter field in the VM for storing the value of the counter;
wherein the VM is further for resetting the range field, and the unique identifier further comprises the counter field.

50. (New) The system of claim 46, further comprising:
a third NVM coupled to the VM, for storing a predetermined identifier; and
a predetermined identifier field in the VM for acquiring the predetermined identifier from the NVM and storing the predetermined identifier;
wherein the unique identifier further comprises the predetermined identifier field.

51. (New) The system of claim 49, further comprising:
a third NVM coupled to the VM, for storing a predetermined identifier; and
a predetermined identifier field in the VM for acquiring the predetermined identifier from the NVM and storing the predetermined identifier;
wherein the unique identifier further comprises the predetermined identifier field.

52. (New) The system of claim 51, wherein a single NVM comprises at least two of the first NVM, the second NVM, and the third NVM.